

Gulf Cooperation Council

EDICT OF GOVERNMENT

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GSO 2135 (2010) (English): Spices and condiments – Fennel seed, whole or ground (powdered) -- Part 1: Bitter fennel seed (*Foeniculum vulgare* P. Miller var. *vulgare*) - Specification (Draft Standard)

ISO INSIDE



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ئەت دەقىقىيەتلىكىسى ئەن تەعبۇن نەزول ئەن خەيىج ئەن عزبېت GCC STANDARDIZATION ORGANIZATION (GSO)

مشروع بئی

GSO 05/FDS/ ISO 7927-1:2010 (E)

ISO 7927-1 : 1987

لئوئی اب م ویلے هبراث - چھائی شی مز ان کبم هت و ان مطحی وت - ان شھی اے
ا.ول: چھیتھی ان شی مزان مزہ - انھی افبیث

**Spices and condiments – Fennel seed, whole or ground (powdered) -
- Part 1: Bitter fennel seed (*Foeniculum vulgare* P. Miller var. *vulgare*)
- Specification**

اعذاد

لله ح تفديت لخه ي حق تدق طبع لم اص فبتش لاغنيات وش لاع ييت

هذی **الثایقیت** هش زو عن **ماصرقیتیبس** یت خه **هیچ یت مقتسی عج** لابد اع ان زای اون مه **حظب ش بش او بی**، نن **کف او بی** عز **ضرمتی خییز و تیبیم**، ولا **یچ سان زجی ع لی بی** **لکم اصرقیتیبس** یت خه **هیچ عت** **الب عذاعت ملبی** مه **مج هس** **اداره اانهیت**.

تلق ذي م

هئٰت اخْرِجَتْ سِنْ دُولَيْجِ مَسْلِحَعِ بُوْ نِ دُولَلِ خِهِ جِنْ اعْشِتْ هَيْتْ قَهِ تَحْضِي فَ عَضْرِجَهِ بِهِ ا. جِزْهَهِ اَنْهِ طُهِ نَهِيْ اهْرِبَثْ وَانْهِ بِهِ سِ فَ دُولَلِ خِهِ جِلْشِعِ بِهِ، ويِ بِهِوْ اَنْهِتْ اَعْذَادَهِ اهْرِبَثْلَنْ قِبِسَتْ لِخِهِ جِبَهِ اَسْهِ نِ جِبْهِتْ بِهِصَصَتْ.

وَقْبَهِيْ جِهِتْ اَنْهِ سِنْ دُولَيْجِ مَسْلِحَعِ بُوْ نِ دُولَلِ اَنْهِ جِنْ اعْشِتْ ضَهِ بِهِرَبِيْجِ عَمَلَهِ جُهَتْ اَنْهِتْ سَرْقِيْ 5 لِلَّهِ جِلْتِنْ فِتْلِ خِهِتْ نِ قَطْعَهِ اهْرِبَثْلَنْ خِهِتْ لِنِ نِسْ اَعِتْ لِيْجِ اَنْهِ لِهِنْلَنْ قِسْتَنْلَوْنِتِقِيْ 1987 : ISO 7927-1 "اَنْجَهِ اَبِمِ طِنْهِسَهِ اَثْ - جِهِلَانْشِيْلِهِنْلَكِبِيْهِتْ وَانْهِ طِحَوْتْ اَنْجَزَهِ اَوْلَهِيْهِ اَنْشِيْشِ لِلَّشَهِ-اَنْهِ اهْرِبَثْ" لِنْهِ خَهِصْرِجَهِ بِهِ "يُهَنْكِ اَخْرِجَهِ سِنْلَوْنَتْ" وَهِ جِهِشِجَهِ بِهِ اَنْهِ اَغْتَنْ اعْشِتْ. وَقِبِيْ جِهِونَتْ اِلِهِمْلِ اَنْهِ اعْشِتْ اَنْجَهِ حَذَفِ اَذْلِيْشِشِهِ وَعِهِ اَصْهَفَتْ.

قِذِ اَعْهَذَهِ هِزْ طِلَاصِفَتْ لِهِيْ اهْرِبَثْ قِبِسَتْ / لِهِتْفِتْ (خِهِ جِتْ دُوْ اِدْخَبِلْ لُهْتْ حِدِيلَاتِفِتْ عِهِهِ وَنِكْ فَ اَجَّهِ بِعِهِجِ مَسْ اِسْلَهِ اَنْهِتِقِيْ) (هِنْزِيْعِقِهِنْبِسُهِ / / -هِ، اَنْهِلَقْ / / وِهِ).

Foreword

GCC Standardization Organization (GSO) is a regional Organization which consists of the National Standards Bodies of GCC member States. One of GSO main functions is to issue Gulf Standards /Technical regulations through specialized technical committees (TCs).

GSO through the technical program of committee TC No.:5 "Gulf technical committee for standards of food and agriculture products". Has adopted the international standard No. ISO 7927-1 : 1987 "Spices and condiments – Fennel seed, whole or ground (powdered) -- Part 1: Bitter fennel seed (*Foeniculum vulgare P. Miller var. vulgare*) – Specification" issued by International Organization for Standardization which has been translated into Arabic. The Draft Standard has been prepared by United Arab Emirates.

This standard has been approved as a Gulf (Standard / Technical Regulation) without any technical modifications by GSO Board of Directors in its meeting No. () , held on / / H, / / G.

Spices and condiments – Fennel seed, whole or ground (powdered) - - Part 1: Bitter fennel seed (*Foeniculum vulgare P. Miller var. vulgare*) - Specification

1- Scope

This part of GSO/ ISO 7927-1 specifies requirements for bitter fennel seed ¹⁾ (*Foeniculum vulgare P. Miller var. vulgare*), whole or ground (powdered) , the requirements for sweet fennel seed not included.
Recommendations relating to storage and transport conditions are given in the annex.

2- Normative references

- 2.1 GSO ISO 927, Spices and condiments — Determination of extraneous matter content.
- 2.2 GSO ISO 928, Spices and condiments — Determination of total ash.
- 2.3 GSO ISO 930, Spices and condiments — Determination of acid-insoluble ash.
- 2.4 ISO 939, Spices and condiments — Determination of moisture content – Entrainment method.
- 2.5 GSO ISO 948 : " Spices and condiments — Sampling .
- 2.6 GSO ISO 1208, Spices and condiments — Determination of filth.
- 2.7 GSO ISO 2825, Spices and condiments —Preparation of ground sample for analysis.
- 2.8 GSO ISO 6571, Spices , condiments and herbs — Determination of volatile oil content.
- 2.9 GSO 9, Labeling of Prepackaged Foodstuffs.

3 Definition

Whole fennel is the dried fruit of *Foeniculum vulgare P. Miller var. vulgare*, commonly called bitter fennel seed, and occurs as small seeds about 3 to 10 mm in length, 2 to 2,5 mm in breadth, oblong in shape and yellowish to greenish-brown in colour. (See the figure) .

4 Requirements

4.1 Odour and flavour

Fennel seed, whole or ground (powdered), shall have a characteristic odour and a pleasant aromatic aniseed flavour characteristic of the spice. It shall be free from mustiness and other foreign flavours.

4.2 Freedom from insects, moulds:

Fennel seed, whole or ground (powdered), shall be free from living insects and moulds,

¹⁾ Although, botanically speaking, the product is a -fruit", the term -seed" is in common commercial use.

and shall be practically free from dead insects, insect fragments and rodent contamination visible to the naked eye (corrected, in necessary, for abnormal Vision) or with such magnification as may be necessary in any particular case.

If the magnification exceeds X 10, this fact shall be stated in the test report .

In case of dispute, contamination in ground (powdered) fennel shall be determined by the method specified in GSO/ISO 1208.

4.3 Extraneous matter in whole fennel

The proportion of inorganic and organic extraneous matter in whole fennel, when determined by the method described in GSO/ISO 927, shall not exceed the values given in table 1, according to the grade.

Inorganic extraneous matter includes dust, stones, earth or any other inorganic foreign matter.

Organic extraneous matter includes straw or chaff, stalks, Sterns, seeds from other plants and any other organic foreign matter, whether or not originating from other Parts of the plant.

4.4 Defective seeds in whole fennel

The proportion of defective seeds in whole fennel shall not exceed the values given in table 1, according to the grade.

Defective seeds include

4.4.1 seeds which are damaged, Split, broken or which have been bored or attacked by weevils or other insects;

4.4.2 seeds which have not developed properly or which are shrivelled or have been discoloured or blackened.

4.5 Grading of whole fennel

See table 1.

Table 1 - Grading of whole fennel

Grade	Extraneous matter (inorganic + organic) %) m/m) max.	Defective seeds %) m/m) max.
1	1	3,0
2	2	5,0
3	3	9,0

4.6 Chemical requirements ¹⁾

4.6.1 Whole fennel

Whole fennel shall comply with the requirements given in table 2.

Table 2 - Chemical requirements for whole fennel

Characteristic	requirement	Methods of test
Moisture content, % (mlm) max.	12,0	ISO 939
Total ash, % (mlm) on dry basis, max.	10,0	GSO/ISO 928
Acid-insoluble ash, % (mlm) on dry basis, max.	2,0	GSO/ISO 930
Volatile oil content, ml/ 100 g on dry basis, min.	1,0	GSO/ISO 6571

4.6.2 Ground (powdered) fennel

Ground (powdered) fennel shall comply with the requirements given in table 3.

Table 3 - Chemical requirements for ground fennel

Characteristic	requirement	Methods of test
Moisture content, % (mlm) max.	12	ISO 939
Total ash, % (mlm) on dry basis, max.	10,0	GSO/ISO 928
Acid-insoluble ash, % (mlm) on dry basis, max.	2,0	GSO/ISO 930
Volatile oil content, ml/ 100 g on dry basis, min.	1,0	GSO/ISO 6571

Ground (powdered) fennel shall pass completely through a sieve of nominal size of openings 800 µm.

4.7 The Whole or ground (powdered) fennel shall be packed in clean, Sound and dry Containers made of a material which does not affect the product and which protects it from moisture and from the loss of volatile matter.

5 Sampling

Sample the fennel, whole or ground (powdered), by the method specified in GSO/ISO 948.

¹⁾ Limits for toxic substances will be included later, in accordance with the recommendations of the Joint FAO/WHO Codex Alimentarius Commission.

6 Methods of test

Samples of fennel, whole or ground (powdered), shall be tested for conformity with the requirements of this Standard by the methods of test referred to in 4.2 and 4.3, and tables 2 and 3.

The ground sample for analysis shall be prepared in accordance with GSO ISO 2825.

7 labeling

Without prejudice to what is stated in the GSO standards mentioned in 2.9 the following information shall be labeled on the containers:

- 7.1 name of the product and the trade name or brand name.
- 7.2 name and address of the Producer or packer;
- 7.3 batch or code number;
- 7.4 net mass;
- 7.5 grade;
- 7.6 producing country ;
- 7.7 any other marking required by the purchaser , such as year of harvest and date of packing (if Known);
- 7.8 possibly, a reference to this Standard.

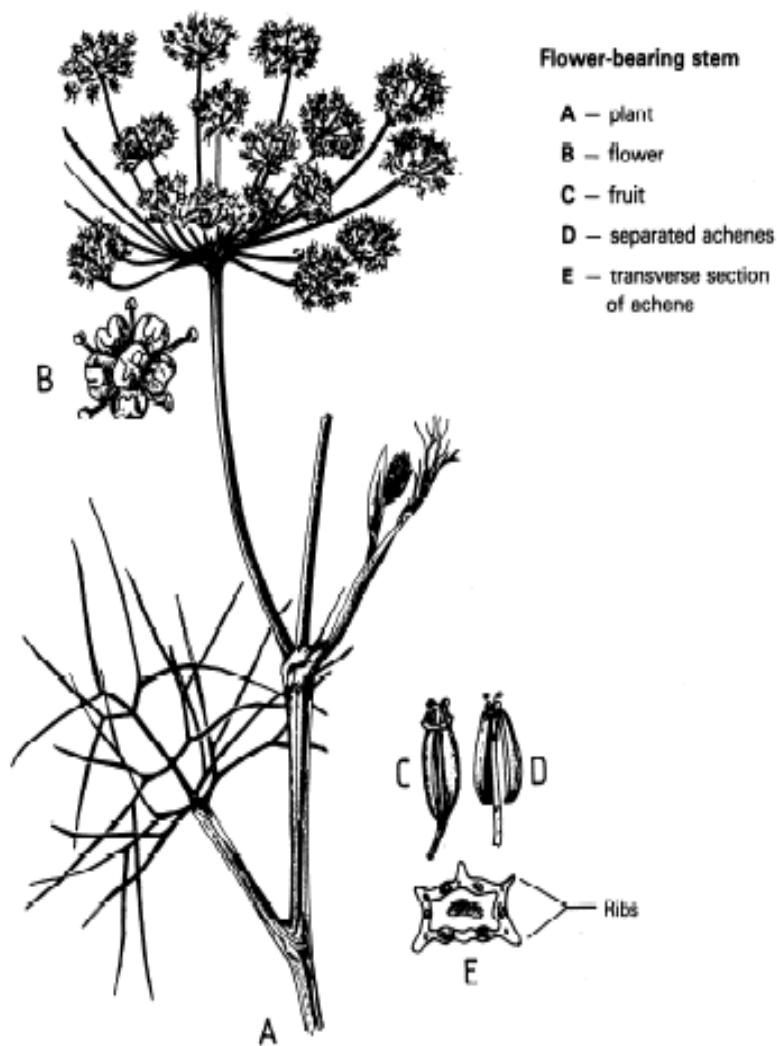


Figure – *Foeniculum vulgare* P. Miller var. *vulgare*

Annex

Recommendations relating to storage and transport conditions
(This annex does not form part of the Standard.)

A.1 Containers of fennel, whole or (powdered), be stored in premises, well protected from the sun, rain and excessive heat.

A.2 The store-room should be dry, free from objectionable odours and proofed against the entry of insects and vermin. The ventilation should be controlled so as to give good Ventilation under dry conditions and to be fully closed under damp conditions. In a storage warehouse, suitable facilities should be available for fumigation.

A.3 The Containers should be so handled and transported that they are protected from the rain, from the sun or other excessive heat, from unpleasant odours and from Cross-infestation, especially in the holds of ships.